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ABSTRACT

Based on a literature review of factors that affect the provision of learning opportunities for adults and the experiences of Singapore's Institute of Technical Education (ITE), this paper proposes an empirical framework for developing and implementing lifelong learning systems. Following an introduction, the theoretical foundation for the framework is discussed, indicating that it takes into account environmental factors affecting education and the characteristics of adult learners. Ten strategies for developing lifelong learning programs are then presented, addressing the following three areas: (1) environmental factors, including maintaining an active partnership between government, employers, and unions and developing effective evaluation systems; (2) adult learners' extrinsic motivating factors, stressing the importance of program accessibility and affordability, properly trained teachers, relevance to the workplace, and financial incentives; and (3) adult learners' intrinsic motivating factors, including ensuring program accreditation, providing avenues for progression, and promoting the benefits of the program. Finally, outcomes for these 10 ten strategies are presented based on an evaluation of their application in 3 ITE training programs: Basic Education for Skills Training, Modular Skills Training, and the Certified On-the-Job Training Centre. This section indicates that the government-employer-union partnership, program affordability, accessibility, and accreditation were key strategies in all three programs. Contains 24 references. (BCY)

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In: Lifelong Learning: Policies, Practices, and Programs

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An Empirical Framework for Implementing Lifelong Learning Systems

by Law Song Seng and Low Sock Hwee

Among governments, economic advisors and policy makers, there has been much recent debate and discussion with regard to lifelong learning. However, beyond the rhetoric, there is a need to translate interest into effective systems of learning. This paper proposes an empirical framework of value to policy makers and practitioners who are interested in the development and implementation of lifelong learning systems. The foundation for this framework is based on a literature search into factors that affect the provision of learning opportunities for adults. Two broad groups of factors were identified: namely, characteristics which influence the changing environment and characteristics that motivate adults as learners. Through this process, ten key strategies were identified, grouped and integrated into the proposed framework. The framework has been empirically validated against experience with three successfully run national worker education and training programs. Four of the ten key strategies, specifically, active tripartite partnership, affordability, accessibility and accreditation, were extensively applied across the programs. Although the extent of applicability with regard to the other strategies varies, all ten are viewed as important conditions for implementing effective learning systems. Further research will be necessary to test the sufficiency of these conditions and transferability of experience among different countries.

INTRODUCTION[1]

Lifelong learning, in its broadest sense, is the continuation of any and all forms of learning throughout one's life. It encompasses adult education, vocational skills acquisition and other less formal activities that contribute to the social well-being and personal development of an individual. However, increasingly, lifelong learning is viewed as an essential capability in a people, workforce and society in order to compete successfully in a global economy. This recognition has not only generated much interest in economic groupings like the Organisation for Economic Cooperation and Development (OECD) and the Asia Pacific Economic Cooperation (APEC) Forum, but has also encouraged discussions among governments and policy

[1]The authors are grateful to H. C. Tan, Y. B. Aw, C. M. Chia, C. S. Chor and J. Ho for their valuable contributions towards the preparation of this paper.

makers. The consequence is a proliferation of research, innovative programs and ideas on lifelong learning in recent years throughout Europe, North America and the East.

Beyond these debates and initiatives is the need to translate interest into effective systems of learning. The provision of lifelong learning programs does not always elicit spontaneous response from the targeted population. Studies have, for example, shown that the lower the initial education, the less likely the learner will be to continue to learn in adult life (Titmus, 1989). Ironically, the less qualified are the ones most in need of upgrading in the face of social, economic and technological changes. To date, authors on lifelong learning have mainly focused on strategic policies and concepts of lifelong learning. There is no single unified framework which can be used to facilitate, motivate and reward adult lifelong learners. Such a guide will be valuable to policy makers and practitioners who are interested in the operational thrusts of providing lifelong learning programs.

This paper proposes such a framework for implementing lifelong learning systems. It is based on a literature search and validation against the experience of a national training institution, the Institute of Technical Education (ITE) in Singapore.

A PROPOSED FRAMEWORK

Theoretical Foundation

The foundation for this framework was derived from a literature search into factors that broadly affect the provision of learning opportunities for adults. Two groups of factors were identified. The first relates to the influence of the changing environment on the provision of learning opportunities (Coombs, 1985; Gelpi, 1979). The second focuses on the characteristics of adults, recognizing that others who have extensively examined the subject of adult education invariably emphasize these characteristics as having a significant influence on the learning process (Courtney, 1992; A. Rogers, 1986; J. Rogers, 1989; Titmus, 1989). An effective lifelong learning system for adult learners must respond not only to the dynamic environment but also to the motivational factors.

Environmental Factors

One of the most notable features of the modern age is the accelerated pace of change and the resultant influence on political, socioeconomic and demographic trends. Technological advancement has a significant influence on transforming the workplace, occupational profiles and job skills. In the post cold war era, international political conflict has given way to economic competition and market liberalization. This has led to a demand for a more educated and better trained workforce in keeping with the needs of industrialisation. Hence, the demand for more open and democratic systems of learning for all (Ireland, 1979). As countries move up the economic ladder, there will be greater demands on individuals not only to learn and re-learn, but also to achieve higher skill levels and qualifications. Therefore, it is government's responsibility to ensure that education can be acquired by all (Garelli, 1996). Business corporations, in which individuals invest their time, energy and

resources, must also continuously adapt and respond so as to stay relevant within the external environment.

In addition, there is a clear demographic trend towards increased life expectancy for the world's population. This means that workers are expected to remain in the labour market for a longer time. There is also the problem of a greater number of more highly skilled young people displacing less skilled older people as competition for jobs grows more fierce. These factors will have significant influence on lifelong learning systems in that learning opportunities will have to be constantly reviewed to meet the changing needs of an aging population.

Characteristics of Adult Learners

As well as environmental factors, an effective lifelong learning framework must consider the learning characteristics of adults. The majority of adult learners, whatever their situation or stage of development, are likely to exhibit characteristics that distinguish them from younger students in full-time schools (Uden, 1993). Generally, adults as learners:

- are likely to have a wealth of experience which needs to be taken into account when planning programs;
- are more likely to participate intermittently in learning programs due to work and family commitments, and as a result need training achievements formally recognised in smaller elements or increments;
- are constrained in terms of where and when they study by work and family commitments, which means that learning programs targeted at adults need to be available at convenient times and locations, and via appropriately flexible modes of study;
- are often influenced by earlier negative experiences with the education system and as a consequence need to be persuaded back into learning, which, in turn, requires appropriate teaching strategies and specific approaches to the planning, marketing and delivery of courses;
- participate voluntarily, and approach the learning environment in order to satisfy specific needs or goals. (Hoale in his 1961 classic, *The Inquiring Mind*, identified three main orientations for learning - also see Rogers, 1986. Some adult learners are *goal-oriented*, and they approach the learning environment in order to achieve a specific objective such as a certificate or promotion. A second group is described as *activity-oriented*, and they participate for social or personal growth needs. The third group is described as *learning-oriented*, and their motivation is based on knowledge or skill for its own sake.)

The first four characteristics can be interpreted as extrinsic factors that either facilitate or inhibit learning. But the last characteristic is intrinsically driven. The implications for the lifelong learning system are two-fold. First, it must incorporate features that *facilitate and reward learning* so that dissonance associated with

learning is removed. However, these features do not in themselves make learning satisfying. Second, there must be features to *motivate the adult learner's goals* so as to increase readiness to learn (A. Rogers, 1986). This latter factor is particularly challenging. It may require a behavioural change on the part of the adult learner where learning in itself becomes a motivator so that the learning becomes satisfying (McClelland, 1985).

Identifying Strategies for a Lifelong Learning Framework

Preliminary findings on environmental and motivational factors led to a further lit-

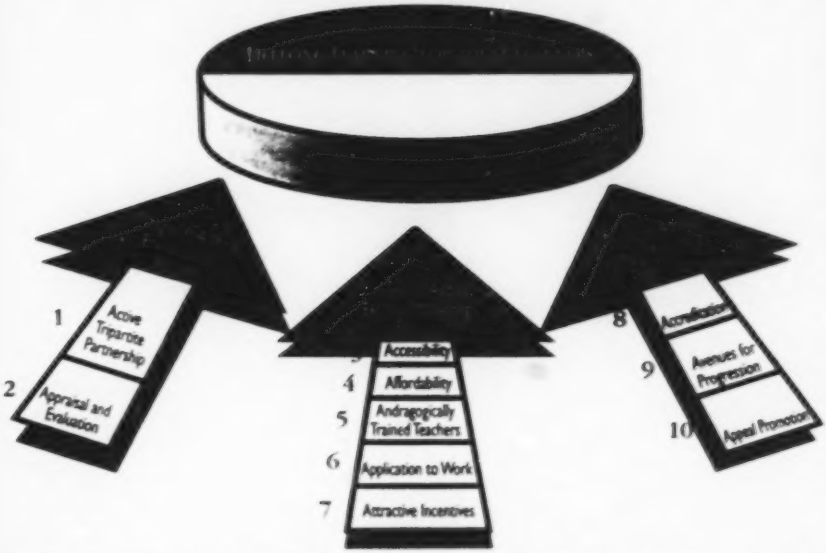

Figure 1: An Empirical Framework for Implementing Lifelong Learning Systems

erature search focusing on strategies and good practices, whether simply advocated or actually in practice, which characterize successful learning programs. Ten key strategies were identified, grouped and integrated into the proposed framework as illustrated in Figure 1.

The first set of strategies seeks to maximise support from the environment. The second set reflects the extrinsic motivating factors faced by adult learners. The third set addresses the intrinsic factors that can increase the self motivation of adults to learn and to continue learning.

Strategies To Address Environmental Factors

Two strategies ensure that a lifelong learning system is interactive with and draws on the vast resources within its environment.

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Strategy 1 : Active Tripartite Partnership

An effective lifelong learning system is not an end but a means to an end. The beneficiaries of such a system include individual learners, businesses and the society as a whole. The system is a means to enhance the competitive edge of an economy and it must be clear that the government, employers and trade unions are all stakeholders in the system. An OECD (1996) publication titled *Lifelong Learning for All* stressed the importance of this tripartite partnership involving government, employers and unions as active providers of education and training.

There is increasing agreement that government needs to assume a significant role in coordinating the provision of lifelong learning. Government should disseminate information and provide guidance on available options. It is also the responsibility of government to establish the appropriate framework conditions and incentive systems for lifelong learning. At the same time, Longworth & Davies (1996) argue that employers have a role to create an environment and conditions to facilitate lifelong learning among adult learners. Trade unions also stimulate lifelong learning through initiating joint training programs with business (Uden, 1993).

In a study of vocational education in five developed countries, Cantor (1989, pp. 157-158) concluded that "a successful system of vocational training ... is likely to be one which recognises and promotes a 'dual mandate', namely the education and vocational training of the individual both in his own interest and for that of the economy". For this to occur, the government and employers must assume direct responsibilities for the provision of learning opportunities.

Strategy 2 : Appraisal and Evaluation

For a lifelong learning system to remain relevant and effective in an environment marked by rapid social, economic and technological change, it must be subjected to regular appraisal and evaluation. A performance review must not be an end in itself, or merely a check on current progress. It must challenge the development of new areas and work towards new levels of achievement. By seeking continual improvement, investment in human resources can be maximised.

Today, learning audits, in which companies carry out surveys into past experiences of learning and analyze the future learning needs of employees, are being tested in Europe (Longworth & Davies, 1996). The results of these surveys can lead to greater satisfaction of learning needs.

Strategies to Address Extrinsic Motivating Factors

The following five strategies address motivating factors. By removing external barriers to learning and providing suitable encouragement, these strategies increase the adult learner's ability and willingness to respond.

Strategy 3 : Accessibility

Timing, location and physical accessibility of training opportunities are all factors which affect adult participation in learning activities (Uden, 1993). When the provision of learning opportunities is made more flexible, the barriers to learning are

removed and this may be the crucial external motivating factor which encourages participation among many adult learners.

Flexible training schedules, modular curricula structures, work-based learning and open and distance learning are examples that promote accessibility.

Strategy 4 : Affordability

Research into industrialised economies has shown that when the updating of knowledge, skills and competencies is not possible, individuals face increased risk of low earnings, high unemployment and even marginalisation (OECD, 1996). In other words, the likelihood of unemployment and lower average earnings is highest among the least qualified — the ones most in need of opportunities for lifelong learning.

Therefore, financial support to pursue lifelong learning opportunities is imperative. This need is greatest for basic education and occupational skills training in order to ensure that there are no financial barriers for those whose need is greatest.

Strategy 5 : Andragogically Trained Teachers

OECD Ministers acknowledge that the quality of education depends mainly on the skill, experience and motivation of teachers and trainers (Longworth & Davies, 1996). The challenge for teachers of adult learners is greater since adult learners bring with them an accumulation of experiences and expectations. One consequence is that trainers involved in the provision of education and training for adults need to be equipped with skills appropriate for this clientele (Uden, 1993). This will help to ease the transition from work to classroom, particularly for adult learners who have negative recollections of past learning experiences or those who have been out of the formal education system for a long period of time.

Strategy 6 : Application to Work

Motivation to learn will increase when adults comprehend the benefits of education. Adult learners are eager to learn when they see education as a solution to their problems and when they are able to apply the learning in their daily lives (Reizen, 1996). Therefore, adult learners' needs must be directly reflected in the curriculum. Increasingly, training programs are tailored to be concurrent with work, thereby supporting the work-related needs of learners. Relevance to work has the joint advantages of increasing motivation and promoting improved performance on the job (Murphy, 1996). The emphasis on linking learning to settings in which adults feel competent and knowledgeable also helps adult learners to develop positive feelings about learning (Titmus, 1989).

Strategy 7 : Attractive Incentives

The provision of financial incentives acts as an external motivator, attracting adult learners to engage in lifelong learning opportunities. Ball (Longworth & Davies, 1996) recommended that financial incentives should be systematically developed for increased participation. Not all rewards need be financial, however. Book vouchers and time-off from work can also be used to enhance participation.

Strategies to Address Intrinsic Motivating Factors

Three strategies are proposed which may be used to motivate adult learners to participate in lifelong learning by capitalising on intrinsic motives and thereby propelling them to action. These strategies will also make learning more satisfying in the process, and they are internalised in that they are driven by the adult learner's inner needs for recognition, growth and self development (J. Rogers, 1989).

Strategy 8 : Accreditation

Adult learners are results-oriented, and accreditation of training is important to them (Kuo, 1981). The desire to learn will be greater if achievements are recognised. As such, any person with a particular skill should be able to have it evaluated and validated regardless of how it was acquired (Arbault, 1996).

Various initiatives have been launched in order to improve the marketability of educational programs. For example, New Zealand has established a single national framework for the recognition of school, vocational and higher academic qualifications. Germany has attempted to put qualifications for part-time vocational studies on an equal footing with those for general education. Canada has established a system for the recognition of prior learning (OECD, 1996). These steps enhance the recognition of skills and competencies, and in doing so act as a motivator in support of lifelong learning.

Strategy 9 : Avenues for Progression

To facilitate the adult learner's need for growth and self-development, paths for continuous learning throughout the entire life span must be available. In fact, this is the first and most obvious principle of lifelong learning. Vertical integration, where learning at one stage serves as a preparation for the next, is critical (Knapper & Cropley, 1985).

In this light, it is important for accreditation to be portable and transferable. Otherwise, various forms of accreditation will not facilitate linkages between learning stages (Titmus, 1989). The European Union, for example, is considering the notion of a European Personal Skills Card. This, if adopted, will allow for the transfer of qualifications and competencies between Member States, and between workplace and educational institutions.

Strategy 10 : Appeal Promotion

J. Rogers (1989) argued that the more obvious the need and purpose for learning, the greater the motivation will be to learn. Adult learners need to be persuaded, and they must be convinced that the benefits derived from attending a training program outweigh the opportunity costs.

Learning must not be offered on a take-it or leave-it basis. On the contrary, marketing and packaging must make learning an opportunity that cannot be refused. Marketing and promotion must also be widespread and have sufficient penetration to ensure that information is effectively conveyed to the target groups.

VALIDATING THE LIFELONG LEARNING FRAMEWORK

Having identified the ten key strategies as significant characteristics of lifelong learning systems, the validity of the proposed framework was empirically tested using three ITE national training programs.

ITE is an integral part of Singapore's education and training system. As a post-secondary technical institution, its primary function is to provide vocational and technical training for school leavers who have received ten years of general education. A second primary function of ITE is to provide worker education and training opportunities for working adults through a comprehensive system of Continuing Education and Training (CET) programs. The CET programs are broadly grouped as Worker Education, Skills Training, and Industry-Based Training. Each category of programming meets different training needs of workers in Singapore.

Worker Education programs allow adults to continue their academic education up to secondary levels. These include the Basic Education for Skills Training (BEST), Worker Improvement through Secondary Education (WISE), and Continuing Education (CE) programs. Skills Training programs provide opportunities for adults to learn new skills or update current skills. The first of these programs offered was the Modular Skills Training (MOST) program. Over the years, ITE has introduced additional Skills Training programs, including the Training Initiative for Mature Employees (TIME) and Adult Cooperative Training Scheme (ACTS), each targeted at different groups of adult workers. ITE launched its latest initiative, the Certified On-the-Job Training Centre (COJTC) System, an Industry-Based Training program, two years ago in order to expand training opportunities in the workplace.

Two of ITE's pioneer CET programs, BEST and MOST, along with the more recently introduced COJTC System, were used for empirical validation of the proposed framework. Table 1 summarizes these results.

BEST

BEST was launched in 1983 as a national program to provide workers with a basic education so that they could upgrade their skills and keep pace with changes in the industry. BEST offers 4 modules each in English and mathematics up to the Primary Six level (see Vocational Industrial Training Board, 1983, 1986).

Tripartism has been a key strategy underlying much of the success of BEST. Various government bodies, the National Trades Union Congress (NTUC) representing the unions, and employers were involved in the development of BEST, and a tripartite advisory council was formed to oversee the implementation. This ensured that the needs of workers and industry were fully reflected in the program. At the same time, this approach encouraged joint ownership as well as active support for and participation in the program.

Under the direction of the advisory council, the teaching materials and instructional aids for BEST were developed and have been revised and updated several times. Surveys are conducted periodically to obtain feedback from participants, instructors and employers. The last survey, conducted in 1992, showed that 90% of the graduates found BEST to be effective in upgrading their English communication

skills and competency in mathematics (VITB, 1992).

The accessibility of BEST is another important characteristic. The strategy was to extend the program through an extensive network of training centres involving not only the educational institutions but also the unions and companies. This nation

Table 1: Validating the Lifelong Learning Framework

	BEST	MOST	COJTC
Environmental Factors			
Active Tripartite Partnership	★★★	★★★	★★★
Appraisal and Evaluation	★★★	★★	★
Extrinsic Motivating Factors			
Accessibility	★★★	★★★	★★★
Affordability	★★★	★★★	★★★
Andragogically Trained Teachers	★★	★★	★★
Application to Work	★★★	★★	★★★
Attractive Incentives	★	★	★
Intrinsic Motivating Factors			
Accreditation	★★★	★★★	★★★
Avenues for Progression	★★★	★★★	★★
Appeal Promotion	★★★	★★	★★

Key

Applied to a large extent ★★★

Applied to some extent ★★

Applied to a small extent ★

wide network of 132 company in-house centres, 35 NTUC centres, 4 ITE institutes and 8 school centres ensures that training is within easy access for all workers. And there are other motivating features. An open door policy was adopted to encourage participation, and training is conducted in modules so that results can be seen within a period of 20 weeks. The two intakes each year provide adults with more frequent choices of training opportunities. Flexible scheduling — evenings, weekdays and weekends — helps meet the needs of working adults. Many workers at company centres attend the program during working hours.

The course fee is kept affordable, a strategy advocated in the lifelong learning framework. This is especially important as workers who need basic education generally come from the lower income group. BEST is nationally funded by the Skills Development Fund (SDF). Participants pay a nominal fee of $15 (Singapore) per module, a token sum to encourage ownership for learning. In addition, community self-help groups provide training subsidies and incentive awards for those who need financial assistance, and companies receive capital and training grants to set up training centres and conduct BEST. Workers attending BEST classes at company centres generally do not pay fees.

The learning needs of adults were a prime consideration during the development of this program. The materials were produced by specialists in adult learning who ensured that the curricula are oriented towards the work situation and the interests and experience of the target group. Teachers are trained to manage an adult learning environment. The first batch of 240 BEST program teachers were trained by instructors from the Alberta Vocational Centre in Edmonton, Canada. Today, all newly recruited teachers must undergo a five day Teachers' Training Course that includes andragogy skills.

Accreditation of Training scores highly as another lifelong learning motivating strategy. BEST participants are awarded a nationally recognised module certificate upon passing the prescribed tests, and the pass rate has averaged 84%. With certification, participants may continue to upgrade through WISE, CE or other Skills Training programs.

Various promotional strategies are employed to publicize BEST. The easy to recognise acronym has been very effective in this regard. A team of officers promotes CET programs to employers and workers across all industrial sectors, and advertisements in major newspapers precede each intake in order to generate awareness. The NTUC has been an active partner in the promotion and conduct of BEST, and there are frequent reminders and exhortation in the media which encourage workers to accept lifelong learning as a way of life ("Asian Workers...", 1996).

BEST was launched in 1983 for a target group of some 225,000 workers who lacked a primary-level qualification in English and mathematics. Today, BEST, in its 14th year of implementation, has reached over 207,000 workers. The demand for the program remains strong with about 20,000 training places taken up every year.

MOST

The MOST program was launched in 1987 to upgrade the skills of the workforce and enhance Singapore's global competitiveness. Under MOST, workers can choose

from a wide range of part-time courses leading to the National Technical Certificate (NTC) and Certificate of Competency (CoC) national skills qualifications. Each NTC course has four self-contained modules which lead to employable skills, while the CoC course has two modules.

Although MOST is primarily government-driven by ITE, the element of tripartism is still strong. The courses which follow the established national skills standards are developed in consultation with industry so that training will be relevant to the workplace. Industry representatives sit on training advisory committees in the various trades to review the curriculum at regular intervals. Surveys are also taken periodically to obtain feedback from employers. The NTUC has long been a staunch supporter of worker education and training. Employers too have shown support for MOST, sponsoring more than 30% of the participants.

MOST has a highly accessible training infrastructure. The courses are offered at nine ITE Institutes island-wide. In addition, 56 approved training providers set up by companies, commercial training organisations and private schools also conduct training in selected courses. ITE has deliberately set minimal entry requirements based on education or work experience, and participants are free to choose modules relevant to their needs. In view of the different providers, training can be tailored to suit the schedules of workers.

In line with the principle of affordability, the cost of training is subsidised at a rate of 80%. Fees for MOST courses vary between $90 and $130 (Singapore) per module depending on the level of training. In addition, study incentives are extended by the NTUC and community self-help groups to participants who need financial assistance, and employers who sponsor their workers for training may claim up to 80% reimbursement of fees from SDF.

Accreditation of Training is another feature that corresponds with the framework. As with BEST, participants receive a certificate upon successful completion of each module. A participant who has been awarded 4 module certificates in the same trade is deemed to have attained full certification. Employers readily accept the certification for recruitment as it is an integral part of the national system. The average pass rate for MOST programming is 85%. This reflects the effectiveness of the learning process. The majority of the teachers are qualified ITE instructors. Instructors from industry must be pedagogically qualified.

The strategies used for promoting MOST are similar to those used with BEST. Like BEST, the acronym, MOST, has become a household name in Singapore. Opportunities to continue learning after MOST are readily available. A MOST participant may progress to a higher level of training at the NTC Grade 2 and the Industrial Technician Certificate (ITC) levels.

In a 1990 survey of MOST participants, more than 90% of the respondents indicated that they had benefited from the courses (VITB, 1990). The benefits that received the highest ratings were (a) an increase in knowledge and skills in the area of work and (b) an increase in willingness to continue to learn and improve. These findings, coupled with a demand for some 15,000 training places annually, support the continuing popularity of MOST.

COJTC

In 1994, ITE introduced a new certification system to certify and recognise companies with good on-the-job training (OJT). The COJTC System encourages employers to implement quality OJT programs, and upgrade the skills of their workers as a continuous learning process. OJT is a flexible and cost-effective way of training workers, a practice very much entrenched in Japanese and German companies.

In the COJTC System, employers assume the main responsibility for training their workers. The role of ITE is to promote, audit and certify companies as OJT centres. Once authorised, companies are free to conduct OJT and award OJT certificates to workers. ITE also works closely with the NTUC in promoting the COJTC System to companies.

Companies whose OJT systems meet the basic requirements stipulated by ITE are registered as COJTCs. An important requirement of a COJTC is the commitment to provide systematic training, including proper planning, job analysis and scheduling. Instructors assigned to conduct OJT must have attended a recognised Coaching Skills course. As training is directly focused on job needs, results are more explicit and workers and employers are better motivated. Companies are also given an incentive of $3 per trainee-hour by the SDF to help offset the cost of training.

The principle of accessibility is one of the strongest features of a COJTC. Conducted on-the-job during working hours, training is literally available at the doorstep. Qualified OJT instructors provide the coaching, and no fees are involved. The OJT certificate is recognised for entry into MOST courses.

Started with 14 companies in 1994, the scheme now has over 300 COJTCs, providing some 40,000 training places annually. The national target is to certify 500 companies by the year 2000.

ANALYSIS AND LIMITATIONS

Table 1 shows that four of the key strategies have been extensively applied across the programs. *Active tripartite partnership* is particularly notable. All three programs are government-driven, but union support is strong and explicit. And employers are taking on a more active and direct role in the training of their workers, especially with the introduction of the COJTC System. Another significant feature is the role of the government in ensuring that the programs are *affordable* through ITE and the SDF. Also evident is the very comprehensive and integrated CET system, demonstrating that *accessibility* and *accreditation* are key strategies. All training, from basic education to OJT and technical skills, is recognised and leads to national certification.

BEST, MOST and the COJTC are examples of well-established national worker education and training programs, part of an overall strategy for lifelong learning. They continue to attract the support of employers and the participation of workers. On the strength of the success of these three programs, it may be concluded that the ten key strategies are important conditions for an effective framework supporting the implementation of lifelong learning systems. The extent of applicability of each strategy, however, varies across programs. More research will further test the

sufficiency of these strategies.

There are potential limitations. The experience of one country in implementing the framework may not be directly applicable to another. In the validation exercise, the emphasis placed on particular strategies reflects the underlying philosophy and culture in implementing lifelong learning programs. Given a different set of social and economic conditions, the relative importance of each strategy to the success of a program may vary. In some countries there are centralized approaches for governing continuing vocational training, whereas in other countries control is at the regional level. All these differences will have implications for implementing lifelong learning programs. Hence, it would be valuable to further test the proposed framework against the experiences of other countries.

Ultimately, lifelong learning is not about learning, but more about learning how to learn. But effective programs must be created to facilitate the first step in the process. The lifelong learning framework presented here is a good reference point for policy makers and practitioners who are responsible for creating effective lifelong learning systems.

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